

Q 1

Aldehydes can be oxidized by_____?

A

$\text{K}_2\text{Cr}_2\text{O}_7$

B

HNO_3

C

Tollen's reagent

D

All of these

Q 2

_____cathode is used in discharge tube experiment for discovery of protons

A

flat

B

round

C

perforated

D

oval

Q3

Which alkali metal only combine with Nitrogen?

A

Li

B

Fr

C

Cs

D

K

Q 4

Geometrical isomerism arises due to ____?

A

Rotation around a double bond

B

Restriction of rotation around a single bond

C

Restriction of rotation around a double bond

D

Due to double bond

Q 5

Joule-Thomson effect is used to _the temperature of a gas to liquefy it

A

raise

B

higher

C

equalize

D

lower

Q 6

In Powdered form the angles and faces in a crystal are

 Download w

A

Ruptured

B

Changed

C

Unchanged

D

None of these

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Q 7

The biochemical process used in the synthesis of alcohol in the presence of yeast is called as _____?

A

Respiration

B

Photosynthesis

C

Fermentation

D

Aerobic respiration

Q 8

Reagent like $\text{K}_2\text{Cr}_2\text{O}_7$ and H_2SO_4 lead to _____?

A

Reduction

B

Hydrolysis

C

Dehydration

D

Oxidation

Q 9

The negative ions having group of atoms is/are

A

OH-

B

CO₃²⁻

C

Cr₂O₇²⁻

D

all of these

Q 10

Which of the following forces are strongest?

A

Debye forces

B

Dipole Dipole forces

C

Induced dipole forces

D

Metallic bond

Q 11

Which one of the following is an electrophile?

A



B



C



D



Q 12

Benzophenone is also known as :

A

Diphenyl ketone

B

Ethyl Phenyl ketone

C

Tri Phenyl ketone

D

None of these

Q 13 In the addition of sodium bisulfite to carbonyl system, which of the following is nucleophile?

A Sulphide ion

B Sulfite ion

C Hydride ion

D Sodium ion

Q 14

The reaction in which benzene is reacted with alkyl or acyl halide in the presence of AlCl_3 is called as _____?

A

Aldol condensation

B

Wolf kishner reaction

C

Wittig reaction

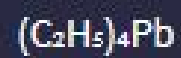
D

Friedel and craft reaction

Q 15

Alkyl halide react with Sodium lead alloy, which of the following is correct formula of tetramethyl lead?

A



B



C



D



Q 16

Which of the following is an example of Tricarboxylic acids ?

A Maleic acid

B Citric acid

C Butyric acid

D None of these

Q 17

In $\text{S}_\text{N}2$ reaction, rate of reaction is directly proportional to concentration of _____?

A Substrate only

B Nucleophile

C Substrate and nucleophile

D All of these

Q 18

Which one of the following is not an example of state function?

A

Temperature (T)

B

Volume (V)

C

Enthalpy (E)

D

Heat (q)

Q 19

If the concentration of reactants in a chemical reaction is Unity the rate is called

A

Unit rate constant

B

specific rate constant

C

Relative rate constant

D

Average rate constant

Q 20

Which of the following process is an example of exothermic reaction?

A

Evaporation

B

Fusion

C

Sublimation

D

Respiration

Q 22

In Which of the following reaction rate of reaction is not affected by increasing concentration of nucleophile ?

A

$\text{S}_{\text{N}}2$

B

E_2

C

$\text{S}_{\text{N}}1$

D

None of these

Q 23

in solid iodine, I-I bond distance is

A

77.1 pm

B

271.5 pm

C

11 pm

D

166.7 pm

Q 24

In a galvanic cell ,Zinc Sulphate left beaker acquires a

A A negative charge

B A net positive charge

C Neutral

D None of these

Q 25

Shifting the position of equilibrium can be used to Increase

A

Temperature

B

pressure

C

yield of reaction

D

All of these

Q 26

Gasoline produced by the Fractional distillation is_____?

A

80%

B

5%

C

65%

D

20%

Q 27

The strength of H-bond is less than covalent bond

A

1 times

B

2 times

C

3 times

D

5 times

Q 28

How carboxylic acid group attached to benzene ring affect its reactivity?

A

Make it reactive

B

Makes ortho position of benzene more reactive than others

C

Makes meta position of benzene more reactive than others

D

Makes para position of benzene more reactive than others

Q 29

In Haber's process volume percentage of ammonia in equilibrium mixture is

A

30%

B

32%

C

35%

D

33%

Q 30

If two amino acids are joined by peptide bond than the molecule is called as _____?

A

Polypeptide

B

Peptide

C

Dipeptide

D

Tripeptide

Q 31

Isotopes are the atoms of same element having different number of _____

A

electron

B

proton

C

positron

D

neutron only

Q 32

In the rate equation $R=k[A]^a [B]^b$, order of reaction is

A

$a \times b$

B

$a-b$

C

$b-a$

D

$a+b$

Q 33

A substance formed by reduction of phenol with Zn is

A

picric acid

B

benzene

C

cresol

D

carbolic acid

Q 34

Charles's law is not being obeyed when temperature is measured on Celsius scale. That's why new scale called _____ has been developed

A

zero Fahrenheit

B

zero Kelvin

C

absolute Fahrenheit

D

all of these

Q 35

Avogadro's hypothesis is applicable to _____ only.

A

all gases

B

inert gases

C

ideal gases

D

light gases

Q 36

Which is un1 for phenols

A

a colourless crystalline solid

B

more reactive to electrophilic attack

C

form pink solution at room temperature

D

dissolves readily in acids

Q 37

When we dissolve a compound of transition element in a solution of salt then it will form

A

Simple ions

B

Strong anions

C

Double salts

D

Complex ions

Q 38

symmetry is repetition of ____ when a crystal rotates at 36° along its axis

A

faces

B

edges

C

angles

D

all of these

Q 39

Which one of the following is a strong acid ?

A

HF

B

HI

C

HBr

D

HI

Q 40

1,4-dimethyl benzene is called as _____?

A

Ortho xylene

B

Para-xylene

C

Para-methyl toluene

D

Meta-methyl toluene

Q 41

which one the characteristic of Ionic solids ?

A

high vapor pressure

B

good conductivity

C

low melting point

D

solubility in polar solvents

Q 42

Polyvinyl acetate is polymer of_____?

A

Acetyl acetate

B

Vinyl acetate

C

Chloro acetate

D

Benzyl acetate

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Q 43

this gas cannot be liquefied by Linde's method

A

methane

B

carbon dioxide

C

hydrogen

D

helium

Q 44

Work done by the system is always

A

Positive

B

Zero

C

Negative

D

Equals to Unity

Q 45 The number of molecules taking part in rate determining step of a reaction is called as _____?

A Order of reaction

B Molecularity

C Intermediate

D Substrates

Q 46

One of them is not an alkali metal, Mark it

A

Francium

B

Caesium

C

Rubidium

D

Radium

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Q 47

Effect of Change in Pressure for a reaction with different number of moles at reactant and product side are

A

Irreversible Reactions

B

Reversible reactions

C

Reversible gaseous reactions

D

All of these

Q 48

When atoms share their electrons to complete its valence shell and attains nearest noble gas configuration, the bond formed is

A

Ionic bond

B

covalent bond

C

metallic bond

D

dative bond

Q 49

Enzymes speed up the reaction upto:

A

10^{10}

B

20^{10}

C

10^{20}

D

15^{10}

Q 50

which one of them belongs to tetragonal system

A

Bi

B

Sn

C

Fe

D

Zn

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Q 51

In exothermic reactions forward reactions need

A

More Energy

B

No energy

C

Less Energy

D

Catalyst

Q 52

Glucose($C_6H_{12}O_6$) is the most important nutrient in a cell for generating chemical potential energy, what is the mass percent of carbon in 1.5g of sample

A

33%

B

40%

C

53.3%

D

6.67%

Q 55

The least value of Van der Waals constant is of

A

H₂

B

N₂

C

CO₂

D

Cl

Q 56

d-block elements are called

A

coinage metals

B

noble metals

C

transition metals

D

alkali metals

Q 57

In bacteria name the colour of light which is responsible for photosynthesis?

A

Ultra-Violet

B

Blue

C

Red

D

None of the above

Q 58

Cellular respiration is essentially what type of process?

A

Oxidation

B

Reduction

C

Redox

D

None of the above

Q 59

The affect of genetic drift increases as the population size?

A

increases

B

decreased

C

remains same

D

none of these

Q 60

Developing seeds are rich source of which of the following?

A

auxins

B

gibberellins

C

cytokinins

D

all of these

Q 61

Which of the following is the most complex sugar?

A

Monosaccharides

B

Oligosaccharides

C

Polysaccharides

D

carbohydrates

Q 62

Cartilage is a form of:

A

Cardiac tissue

B

connective tissue

C

epithelial tissue

D

nervous tissue

Q 63

What does the size of viruses' range between?

A

100 nm to 150 nm

B

20 nm to 250 nm

C

300 nm to 3000 nm

D

3 nm to 30 nm

Q 64

Who opposed the idea the cell is an empty space bounded by thick wall?

A

Lorenz oken

B

Schwann

C

Robert brown

D

Rudolph Virchow

Q 65

What is the strengthening material of the prokaryotic cell wall?

A

cellulose

B

chitin

C

silica waxes and lignin

D

peptidoglycan or murein

Q 66

The process of determining the locus for particular biological traits includes?

A

replication

B

recombination

C

gene mapping

D

none of these

Q 67

Pseudocoelom develops from which of the following?

A

Blastopore

B

Plastoquinone

C

Splitting of mesoderm

D

Blastocoel

Q 69

How many postulates does the germ theory of disease have?

A

2

B

3

C

4

D

5

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Q 70

Larynx is also called:

A

glottis

B

voice box

C

epiglottis

D

both B and C

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Q 71

The complete, mature and infectious particle is known as?

A

Capsid

B

Virion

C

Bacteriophage

D

Nucleus

Q 72

What is critical in photoperiodism?

A

Length of light period

B

Length of dark period

C

both a and b

D

none of these

Q 73

Both radial and bilateral symmetry is found in which of the following phylum?

A

Protozoa

B

Porifera

C

Echinodermata

D

all of these

Q 74

Which of these processes is the means by which a bacterium can directly uptake and incorporate foreign DNA from the environment into its genome?

A transduction

B transformation

C binary fission

D conjugation

Q 75

Which is the largest cell in the human body?

A

macrophage

B

ovum

C

granule cell

D

none of these

Q 76

Hemoglobin can carry:

A

1 molecule of oxygen

B

2 molecules of oxygen

C

3 molecules of oxygen

D

4 molecules of oxygen

Q 77

Phosphatidylserine residues in the plasma membrane are located at?

A

The outer leaflet of the plasma membrane

B

Inner leaflet of the plasma membrane

C

Evenly distributed in the inner and outer leaflet

D

none of these

Q 78

A chemical substance which can react (in place of substrate) with the enzyme but is not transformed into product/s and thus blocks the active site temporarily or permanently is called?

A

coenzyme

B

blocker

C

inhibitor

D

cofactor

Q 79

The size of viruses is usually measured in?

A

centimeters

B

micrometers

C

nanometers

D

millimeters

Q 80

Mammals became dominant in which of the following historical eras?

A

Proterozoic era

B

Mesozoic era

C

Paleozoic era

D

Cenozoic era

Q 81

Respiration involves the

A

Chemical process

B

Biochemical process

C

Mechanical process

D

Both B and C

Q 82

Which is not a necessary condition for the Hardy-Weinberg equation to be true?

A No natural selection

B No net migration of individuals into or out of the population

C random mating

D small population

Q 83

in the first reaction of catabolism___ free the _____

A

fatty acids, polysaccharides

B

protein , amino acids

C

lipids, glucose

D

none of these

Q 84

Where in the female reproductive system thousands of eggs are found?

A

ovaries

B

vagina

C

fallopian tube

D

uterus

Q 85

What type of viruses are the paramyxoviruses?

A DNA enveloped virus

B RNA enveloped virus

C dna virus

D rna naked virus

Q 86

Gene for blue opsin is present on which chromosome?

A

6

B

7

C

8

D

11

Q 87

Inhibitors which block the enzyme by forming weak bond are called?

A

Competitive inhibitors

B

Non-competitive inhibitors

C

Irreversible inhibitors

D

both a and b

Q 88

Chlorophyll b is found in which organisms?

A

Green plants

B

green algae

C

Animals

D

both a and b

Q 89

How much of the body heat is produced by muscle tissue?

A

15%

B

30%

C

55%

D

85%

Q 90

SIV is the abbreviation of

A

simian immunodeficiency virus

B

silurian immunodeficiency virus

C

siberian immunodeficiency virus

D

both a and c

Q 91

Which of these is not a reflex action?

A

Secretion of sweat

B

salivation

C

Flexion due to needle prick

D

blinking of eyes due to strong light

Q 92

When a dye is injected into a plant cell, it will enter the adjacent cell via?

A

tight junction

B

microtubule

C

desmosomes

D

plasmodesmata

Q 93

A three dimensional cavity bearing a specific charge by which the enzyme reacts with its substrate is called?

A

active site

B

binding site

C

catalytic site

D

allosteric site

Q 94

People with chronic hepatitis are at risk of?

A

kidney damage

B

liver damage

C

heart damage

D

lung damage

Q 95

What does NADPH₂ provide during photosynthesis?

A energized electron

B energy

C uncharged electron

D all of these

Q 96

Which of the following would best determine the fitness of an organism?

A

The number of offspring produced by the organism.

B

How much food the organism consumes in its lifetime.

C

How large the organism grows.

D

The number of offspring produced by the organism's own offspring.

Q 97

Which of the following was discovered by J.Seiler in 1914 in mouth?

A

XO-XX

B

XY-XX

C

ZZ-ZW

D

none of these

Q 98

The largest part of forebrain which controls the intelligence, emotions and skeletal muscles is classified as?

A

hypothalamus

B

thalamus

C

cerebellum

D

cerebrum

Q 99

Distribution of intrinsic proteins in the plasma membrane is?

A

random

B

symmetrical

C

asymmetrical

D

none of these

Q 100

Which of the following is found beneath the prostate gland?

A

vas deferens

B

seminal vesicle

C

urethra

D

cowper's gland

Q 101

How many actin filaments surround each myosin filament?

A

2

B

4

C

6

D

8

Q 102

Lungs are spongy because of the presence of:

A

alveoli

B

trachea

C

diaphragm

D

bronchi

Q 103

Which one of the following is not a feature of the nervous system of Planaria?

A Nuerons are differentiated into sensory, motor and associative neurons.

B Nerves are present.

C No specialized sensory organs are present.

D All of the above.

Q 104

Enzymes binds with chemical reactant which is known as?

A

product

B

reactant

C

substrate

D

all of these

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Q 105

The pores through which water enters the sponge body are called:

A

Osculi

B

Ostia

C

Opercula

D

None of the above

Q 106

The furan ring is an important structural component of biological molecules. How many carbon atoms are required to form ribofuranose?

A

3

B

5

C

6

D

2

Q 107

Archaeobacteria can survive at which of the following temperature? (Celcius)

A

300

B

150

C

120

D

200

Q 108

Which brain part is responsible for our basic and primitive emotions?

A

Limbic system

B

Thalamus

C

hypothalamus

D

cerebrum

Q 109

These are properties of lipids_____

A

Insoluble in water and soluble in fat solvent.

B

High energy content

C

Structural component of cell membrane

D

All of these

Q 110

The event happens in menstrual cycle when level of progesterone declines:

A

Ovulation

B

beginning of menses

C

corpus luteum formation

D

maturation of ovarian follicle

Q 111

_____ is responsible for making ribosomal RNA (rRNA).

A

Nucleus only

B

Nucleolus only

C

Nucleus & nucleolus only

D

None of the above

Q 112

Each Kreb's cycle forms how many molecules of NADH?

A

3

B

2

C

4

D

1

Q 113

The function of coelom is best characterized as?

A

To increase the size of the animals

B

To help in the functioning of the reproductive system

C

To provide space for the development of organs and systems

D

none of these

Q 114

Which type of cell would be the most appropriate for the study of chloroplasts?

A

conducting cell

B

pericycle cell

C

photosynthetic cell

D

all of these

Q 115

Which of the following is NOT found in both prokaryotes and eukaryotes?

A

Ribosomes

B

Cytoskeleton

C

Nucleolus

D

Double-stranded DNA

Q 116

Which of the following is an example of syndesmosis?

A radio-ulnar joints

B tibiofibular joints

C Both A and B

D sutures

Q 116

Which of the following is an example of syndesmosis?

A radio-ulnar joints

B tibiofibular joints

C Both A and B

D sutures

Q 117

Which of the following conditions is not required to be true for a population in Hardy-Weinberg equilibrium?

A

Random mutations

B

Large population

C

No natural selection

D

Random mating

Q 120

Lymph capillaries join together to form larger lymph vessels, that gives rise to:

A

Thoracic duct

B

lymph duct

C

thoracic lymph duct

D

sperm duct

Q 122

Primordial soup is a set of hypothetical conditions on ancient earth first proposed by?

A

Dmitri Ivanovsky

B

Dmitry Anuchin

C

Nikolay Shatsky

D

Alexander Oparin

Q 123

Which of the following strategies of enzymatic inhibition is used by noncompetitive inhibitors?

A

Bind to substrate so that it cannot bind to the active site

B

Target the enzyme for destruction using a protease

C

Bind to the active site and prevent substrate from binding

D

Bind to an allosteric site to cause a conformational shift in the enzyme

Q 124

Which of the following is a chemical link between catabolism and anabolism?

A

AMP

B

ADP

C

ATP

D

all of these

Q 125

A motion with constant velocity can be represented on displacement-time graph by:...

A

a horizontal line

B

a curve line with decreasing gradient

C

a straight line with constant gradient

D

a curve line with increasing gradient

Q 126

Magnetic flux is a

A

scalar quantity

B

vector quantity

C

sometimes scalar sometimes vector

D

none of these

Q 127

Beta particle is actually a

A

fast moving electron

B

slow moving electron

C

electron at rest

D

none of these

Q 132

What is the S.I. unit of radioactivity?

A

Curie

B

Rutherford

C

Becquerel

D

all of these

Q 133

One vibration can be defined as:

- A motion of the body from one extreme position to the other extreme position
- B motion of the body from one extreme position to the same extreme position
- C motion of the body from one extreme position to the mean position
- D motion of the body from mean position and back to the mean position

Q 134

A man standing in a bus and pushing the wall of the bus in direction of motion work done by the man is

A

positive

B

zero

C

negative

D

none of these

Q 135

Wave nature of electron is similar to

A

proton

B

beta rays

C

gamma rays

D

all of these

Q 136

Which of the following is equivalent to a temperature -50°C ?

A

-223 K

B

223 K

C

-323 K

D

323 K

Q 137

If heat given is 6 kcal and work done is 6 kJ, then internal energy is

A

19.1 kJ

B

25.2 kJ

C

25kJ

D

zero

Q 138

If radial distance is 2 m and linear acceleration is 2 m the angular acceleration becomes

A

4

B

$\frac{1}{4}$

C

6

D

1

Q 139 Peak voltage in the output of full wave rectifier is 10V so dc component of output voltage is

A $10\sqrt{2}$

B $20/\sqrt{2}$

C $20/\pi$

D 20π

Q 140

When electron strikes with Al plate which photon is emitted

A

blue

B

white

C

purple

D

none of these

Q 141

A radioactive source has a half-life of 80 s. How long it will take to decay $\frac{7}{8}$ of the source?

A

10 sec

B

70 sec

C

240 sec

D

640 sec

Q 142

Which element is used to absorb gamma radiations

A

Co

B

Cl

C

Ni

D

P

Q 143

What is the unit of frequency?

A

1/Hertz

B

1/ second²

C

Second

D

hertz

Q 144

A charged particle is moving in a cyclotron, what effect on the radius of path of this charged particle will occur when the frequency of the radio frequency field is doubled?

A it will also doubled

B it will be halved

C it will increase four times

D remain unchanged

Q 145

An armature coil consists of 30 turns of wire, each of area $A = 0.05 \text{ m}^2$ and total resistance of 10Ω . It rotates in a magnetic field of 0.15 T at an angular speed of $84 \text{ radian per second}$. Determine the value of maximum induced emf produced in the coil.

A

1V

B

500V

C

63V

D

43V

Q 146

If a horse pulls a cart, work done by horse is

A

negative

B

zero

C

positive

D

none of these

Q 147

An electric fan rotating at 3 rev s^{-1} is switched off. It comes to rest in 18.0 s . Assuming deceleration to be uniform. How many revolutions did it turn before coming to rest?

A

30 rev

B

27 rev

C

40 rev

D

10 rev

Q 148

The energy of electron in n th orbit of Hydrogen atom is

A

-0.0136 eV

B

-1.136 eV

C

0.136 eV

D

None of these

Q 149

Which of the following vector is perpendicular to the vector $A = 2i + 3j + 4k$

A

$$i + j + k$$

B

$$4i + 3j - 2k$$

C

$$i - 3j + k$$

D

$$i + 2j - 2k$$

Q 150

A 100 turn coil of area 0.1 m^2 rotates at half a revolution per second. It is placed in a uniform magnetic field of 0.01 T perpendicular to the axis of rotation of the coil. Calculate the maximum voltage generated in the coil?

A

256.33 V

B

89.12V

C

0.314V

D

3.1455 V

Q 151

If a projectile is launched with 3m/s velocity at 60 degree angle then at highest point its horizontal velocity is

A

3 m/s

B

2m/s

C

1.5 m/s

D

1.8 m/s

Q 152

If displacements due to two individual waves are y_1 and y_2 . Then the resultant displacement, y , of the particle of the medium is:

A

$$y = y_1 * y_2$$

B

$$y = y_1 / y_2$$

C

$$y = y_1 - y_2$$

D

$$y = y_1 + y_2$$

Q 153

Which of the following is not an assumption of the kinetic model of an ideal gas?

A collisions between molecules and walls of container are elastic

B the duration of collision between molecules is very short

C all particles of gas has same speed

D all particles of gas have same mass

Q 154

The units of electric intensity are:...

A

volt / meter or newton / coulomb

B

volt / meter or meter / coulomb

C

volt / coulomb or newton / coulomb

D

joule / meter or newton / coulomb

Q 155

A neon flashlight cell with an emf of 1.5V gives a current of 15A when connected directly to an ammeter of resistance 0.04Ω . The internal resistance of the cell is

A

0.0004Ω

B

0.06Ω

C

0.10Ω

D

0.13Ω

Q 156

Calculate the frequency of photon associated with 500 nm wavelength

A

5×10^{14} Hz

B

6×10^{14} Hz

C

7×10^{14} Hz

D

9×10^{14} Hz

Q 157

Maximum efficiency of half wave rectifier is

A

80.6 %

B

40.60%

C

70%

D

50%

Q 158

Solar spectra is a type of

A

continuous

B

discrete

C

both a) and b)

D

None of these

Q 159

The number of electrons taken out from a body to produce 1 coulomb of charge will be

A

6.25×10^{18}

B

625×10^{18}

C

6.023×10^{23}

D

None of these

Q 160

To start a fusion reaction, energy required is

A

small

B

large

C

infinite

D

zero

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Q 161

Ripple factor is defined as

A

I_{rms}/V_{rms}

B

I_{dc}/I_{rms}

C

I_{rms}/I_{dc}

D

$I_{rms} + I_{dc}$

Q 162

The resistance and length of wire are

A

inversely related

B

directly related

C

not related

D

inversely proportional

Q 163

An object moves 20 m in 5 sec. What is the gradient of the displacement-time graph?

A

25

B

15

C

4

D

$\frac{1}{4}$

Q 164

Which of the following is not an example of an adiabatic process?

A

The rapid escape of air from a burst tyre

B

The rapid expansion and compression of air through which a sound wave is passing

C

Cloud formation in the atmosphere

D

slow compression or expansion of gas

Q 165

_____ is conserved in pair production

A

charge

B

momentum

C

both a & B

D

none of these

Q 166

When a body moves vertically upward, the work done will be

A

positive

B

zero

C

negative

D

none of these

Q 167

During an isothermal process which of the following is true?

A

Temperature increases

B

Temperature decreases

C

$dW = dQ$

D

None of them

Q 168

Centripetal acceleration always acts _____ the center

A

away

B

towards

C

normally

D

tangentially

Q 169

A thermally insulated rigid container contains an ideal gas. It is heated through a resistance coil of 100Ω by passing a current of 1 A for five minutes, then change in internal energy of the gas is

A

0kJ

B

10kJ

C

20 kJ

D

30 kJ

Q 170

A 200 watt bulb operates in a 220V circuit. Find the current.

A

0.9 Amp

B

0.6 Amp

C

2 Amp

D

3 Amp

Q 170

A 200 watt bulb operates in a 220V circuit. Find the current.

A

0.9 Amp

B

0.6 Amp

C

2 Amp

D

3 Amp

Q 171

What voltage is required to store 7.2×10^5 C of charge on the plates of a $6.0 \mu\text{F}$ capacitor?

A 12 V

B 43.2 V

C 1.2 V

D 432 V

Q 172

Absorbed dose D is defined as energy absorbed from ionization radiation per unit ____

A

mass

B

charge

C

time

D

area

Q 173

Magnetic flux is zero

A

when angle is 90

B

angle is 0

C

angle is 180

D

none of these

Q 174

Wavelength of a sound wave in air is 10 cm, what is the frequency of the sound wave?

A

33 Hz

B

330 Hz

C

3300 Hz

D

33000 Hz

Q 175

In a double slit experiment, a monochromatic light was used. the wavelength of light was 500 nm.

The distance between slits is 1.0 mm. What is the separation between fringes if they are observed at a distance of 3.0 m?

A

15 mm

B

15 cm

C

1.5 mm

D

1.5 cm

Q 176

Electrical power is given by $P =$

A

VI

B

$I^2 R$

C

V^2 / R

D

all

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Q 177

A bullet of mass 10 g leaves a rifle at an initial velocity of 1000 m/s and strikes earth at the same level with a velocity of 500 m/s. the work in overcoming the resistance of air will be:

A

500J

B

5000J

C

3750J

D

475J

Q 178

Power transformers have maximum efficiency at

A

no load

B

full load

C

half load

D

double load

Q 179

If the temperature of Sun is doubled heat energy reached on earth become

A three times

B sixteen times

C four times

D same

Q 180

SI unit of equivalent dose is

A

gray

B

radiation

C

sievert

D

rem

Q 181

This book has won _____ Booker prize.

A

a

B

an

C

the

D

no article

Q 182

When the dentist came in (A), my tooth was stopped aching (B)/ out of fear (C) that I might loose my tooth. (D)

A

When the dentist came in

B

my tooth was stopped aching

C

out of fear

D

that i might loose my tooth.

Q 183

My watch is five minutes _____.

A

behind

B

before

C

slow

D

early

Q 184

Some of the books on the table _____ to me.

A

belong

B

belonging

C

belongs

D

was belong

Q 185

Don't forget your _____. It's very cold outside, you wouldn't want to catch a cold.

A

gloves

B

underwear

C

umbrella

D

scissors

Q 186

Your friend _____ (wait) for you for over an hour.

A

wait

B

waiting

C

waited

D

waits

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Q 187

secular

A

non-religious

B

unpopular

C

special

D

notable

Q 188 The two machines _____ considerably. One has an electric motor, the other runs on oil.

A different

B differentiate

C differ

D difference

Q 189

would not

A

would'nt

B

wouldn't

C

woul'dnt

D

wouldnt'

Q 191

My parents _____ near Lahore.

A

living

B

are living

C

lives

D

live

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Q 192

_____ You did it again.

A

Hey!

B

Wow!

C

Bravo!

D

None

Q 193

coveted

A

worn

B

greatly desired or envied

C

eager

D

detested

Q 194

The train leaves _____ 5 o'clock, hurry up!

A

at

B

in

C

around

D

under

Q 195

The ebb and flow of the tides _____ explained by Newton.

A

are

B

was

C

were

D

is

Q 196

_____ knows that Dallas is not the capital of Texas.

A

Anyone

B

Many persons

C

Not everyone

D

Somebody

Q 197

luminary

A

bright

B

lightening

C

famous

D

dashing

Q 198

He is a scientist (A)/ but out of (B)/ his three sons (C)/ neither have become scientists. (D)

A

He is a scientist

B

but out of

C

his three sons

D

neither have become scientists.

Q 199

Choose the correct sentence.

A Mrs Sajjad: who was sitting behind the desk, gave me a big smile.

B Mrs Sajjad who was sitting behind the desk gave me a big smile.

C Mrs Sajjad, who was sitting behind the desk, gave me a big smile.

D Mrs Sajjad, who was sitting behind the desk gave me a big smile?

Q 200

The lions _____ (do) tricks; they _____ (jump) through hoops.

A

do, jumps

B

did, jumping

C

did, jumped

D

doing, jumping

Q 201

Statement A smoker has left smoking suddenly a. He will feel restlessness and anxiety. b. He will start gaining weight

A

Both of them follows

B

None of them follows

C

Only b follows

D

Only a follows

Q 202

The hotel is two blocks east of the drugstore. The market is one block west of the hotel. The drugstore is west of the market. If the first two statements are true, the third statement is

A True

B FALSE

C maybe

D unresolved

Q 203

Which one does not belong to others?

A

Apple

B

Mango

C

Cucumber

D

Orange

Q 204

Tea is to mug as the jam is to

A

Plate

B

Bread

C

Spoon

D

Water

Q 206

Statement: All the schools in the area had to be kept closed for most part of the week. Many parents have withdrawn their children from the local schools.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect

C

Both the statements I and II are independent causes

D

Both the statements I and II are effects of independent causes

Q 207

An analogue clock always has

A

Alarm

B

Sound

C

Needles

D

Numbers

Q 208

What should come next to Confound, Illiterate, Bewilder, ?

A

Kind

B

Unlearned

C

Normal

D

Disable

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Q 210

Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer : Statement : Without reforming the entire administrative system, we cannot eradicate corruption and prejudice from the society. Assumptions : I. The existence of corruption and prejudice is good. II. There is enough flexibility to change the administrative system.

A Only assumption I is implicit

B Only assumption II is implicit

C Either I or II is implicit

D Both A and B

Q 209

Statement Should coal engines be replaced by electric engines in trains? Arguments (I) Yes. Coal engines cause a lot of pollution. (II) Yes. Electric engines are good on performance, easy to operate, and low on maintenance. (III) No. Pakistan does not produce enough electricity to fulfill its domestic needs also.

A

All are strong

B

Only I and II are strong

C

Only II and III are strong

D

Only I and III are strong

Q 205

Statement The Management of School M has decided to give free breakfast from next academic year to all the students in its primary section through its canteen even though they will not get any government grant. Courses of Action (I) The school will have to admit many poor students who will seek admission for the next academic year. (II) The canteen facilities and utensils have to be checked and new purchases to be made to equip it properly. (III) Funds will have to be raised to support the scheme for years to come.

A

Only II and III follows

B

Only III and I follow

C

Only I and II follow

D

Only I follows

Q 131

The particle that possesses half integral spin has

A

pion

B

proton

C

k-meson

D

photon

Q 130

Radar system is an application of:...

A

Doppler's effect

B

mechanical effect

C

electric effect

D

magnetic effect

Q 129

Aluminum is:...

A

an excellent conductor

B

a semiconductor

C

an insulator

D

a photoconductor

Q 128

The principle of a direct current generator is based on

A

Coulomb's Law

B

Ampere's Law

C

Faraday's Law

D

Lenz's Law

Q 121

The part of spinal cord where interneurons present is called:

A

White matter

B

Gray matter

C

lumbar enlargement

D

cervical enlargement

Q 119

Radial symmetry is found in which of the following organisms?

A

Coelenterata and Platyhelminthes

B

Arthropoda and Mollusca

C

Porifera and Coelenterata

D

Coelenterata and Echinodermata

Q 118

Which factors may help determine the antigenicity of a virus?

A

capsomeres

B

size of virus

C

whole capsid

D

internal proteins

Q 91

Which of these is not a reflex action?

A

Secretion of sweat

B

salivation

C

Flexion due to needle prick

D

blinking of eyes due to strong light

Q 68

The thalamus and the hypothalamus are located in which region of the brain?

A

brain stem

B

cerebrum

C

cerebellum

D

Diencephalon

Q 54

On industrial scale which catalyst is used for the preparation of methanol?

A

$K_2Cr_2O_7$

B

$PdCl_2$

C

FeO, Mo_2O_3

D

$CuCl_2$

Q 53

Hydroxide ions combine to give

A

Alcohols

B

Aldehydes

C

Oxygen

D

Hydrogen

Q 21

Which of the following is not aromatic?

A

Anthracene

B

Naphthalene

C

Phenol

D

None of these

Q1

Aldehydes can be oxidized by_____?

A

$\text{K}_2\text{Cr}_2\text{O}_7$

B

HNO_3

C

Tollen's reagent

D

All of these

Q2

Which one of the following is an electrophile?

A



B



C



D



Q3

Which of the following is an example of Tricarboxylic acids ?

A

Maleic acid

B

Citric acid

C

Butyric acid

D

None of these

Q4

The size of viruses is usually measured in?

A

centimeters

B

micrometers

C

nanometers

D

millimeters

Q5

In a galvanic cell ,Zinc Sulphate left beaker acquires a

A

A negative charge

B

A net positive charge

C

Neutral

D

None of these

Q6

Shifting the position of equilibrium can be used to Increase

A

Temperature

B

pressure

C

yield of reaction

D

All of these

Q7

Gasoline produced by the Fractional distillation is _____?

A

80%

B

5%

C

65%

D

20%

Q8

The strength of H-bond is less than covalent bond

A

1 times

B

2 times

C

3 times

D

5 times

Q9

How carboxylic acid group attached to benzene ring affect its reactivity?

A

Make it reactive

B

Makes ortho position of benzene more reactive than others

C

Makes meta position of benzene more reactive than others

D

Makes para position of benzene more reactive than others

Q10

In Haber's process volume percentage of ammonia in equilibrium mixture is

A

30%

B

32%

C

35%

D

33%

Q11

If two amino acids are joined by peptide bond than the molecule is called as _____?

A

Polypeptide

B

Peptide

C

Dipeptide

D

Tripeptide

Q12

Isotopes are the atoms of same element having different number of _____

A

electron

B

proton

C

positron

D

neutron only

Q13

In the rate equation $R=k[A]^a[B]^b$, order of reaction is

A

$a \times b$

B

$a-b$

C

$b-a$

D

$a+b$

Q14

A substance formed by reduction of phenol with Zn is

A

picric acid

B

benzene

C

cresol

D

carbolic acid

Q15

Charles's law is not being obeyed when temperature is measured on Celsius scale. That's why new scale called _____ has been developed

A

zero Fahrenheit

B

zero Kelvin

C

absolute Fahrenheit

D

all of these

Q16

Avogadro's hypothesis is applicable to _____ only.

A

all gases

B

inert gases

C

ideal gases

D

light gases

Q17

Which is un1 for phenols

A

a colourless crystalline solid

B

more reactive to electrophilic attack

C

form pink solution at room temperature

D

dissolves readily in acids

Q18

When we dissolve a compound of transition element in a solution of salt then it will form

A

Simples ions

B

Strong anions

C

Double salts

D

Complex ions

Q19

symmetry is repetition of ____ when a crystal rotates at 36° along its axis

A

faces

B

edges

C

angles

D

all of these

Q20

Which one of the following is a strong acid ?

A

HF

B

HI

C

HBr

D

HI

Q21

1,4-dimethyl benzene is called as _____?

A

Ortho xylene

B

Para-xylene

C

Para-methyl toluene

D

Meta-methyl toluene

Q22

which one the characteristic of Ionic solids ?

A

high vapor pressure

B

good conductivity

C

low melting point

D

solubility in polar solvents

Q23

Polyvinyl acetate is polymer of _____?

A

Acetyl acetate

B

Vinyl acetate

C

Chloro acetate

D

Benzyl acetate

Q24

this gas cannot be liquefied by Linde's method

A

methane

B

carbon dioxide

C

hydrogen

D

helium

Q25

Work done by the system is always

A

Positive

B

Zero

C

Negative

D

Equals to Unity

Q26 The number of molecules taking part in rate determining step of a reaction is called as _____?

A Order of reaction

B Molecularity

C Intermediate

D Substrates

Q27

One of them is not an alkali metal, Mark it

A

Francium

B

Caesium

C

Rubidium

D

Radium

Q28

Effect of Change in Pressure for a reaction with different number of moles at reactant and product side are

A

Irreversible Reactions

B

Reversible reactions

C

Reversible gaseous reactions

D

All of these

Q29

When atoms share their electrons to complete its valence shell and attains nearest noble gas configuration, the bond formed is

A

ionic bond

B

covalent bond

C

metallic bond

D

dative bond

Q30

Enzymes speed up the reaction upto:

A

10^{10}

B

20^{10}

C

10^{20}

D

15^{10}

Q31

which one of them belongs to tetragonal system

A

Bi

B

Sn

C

Fe

D

Zn

Q32

In exothermic reactions forward reactions need

A

More Energy

B

No energy

C

Less Energy

D

Catalyst

Q33

Glucose($C_6H_{12}O_6$) is the most important nutrient in a cell for generating chemical potential energy, what is the mass percent of carbon in 1.5g of sample

A

33%

B

40%

C

53.3%

D

6.67%

Q34

Hydroxide ions are combine to give

A

Alcohols

B

Aldehydes

C

Oxygen

D

Hydrogen

Q35

On industrial scale which catalyst is used for the preparation of methanol?

A

$\text{K}_2\text{Cr}_2\text{O}_7$

B

PdCl_2

C

$\text{FeO}, \text{Mo}_2\text{O}_3$

D

CuCl_2

Q36

The least value of Van der Waals constant is of

A

H₂

B

N₂

C

CO₂

D

Cl

Q37

d-block elements are called

A

coinage metals

B

noble metals

C

transition metals

D

alkali metals

Q38

In bacteria name the colour of light which is responsible for photosynthesis?

A

Ultra-Violet

B

Blue

C

Red

D

None of the above

Q39

Cellular respiration is essentially what type of process?

A

Oxidation

B

Reduction

C

Redox

D

None of the above

Q40

The affect of genetic drift increases as the population size?

A

increases

B

decreased

C

remains same

D

none of these

Q42

Which of the following is the most complex sugar?

A

Monosaccharides

B

Oligosaccharides

C

Polysaccharides

D

carbohydrates

Q43

Cartilage is a form of:

A

Cardiac tissue

B

connective tissue

C

epithelial tissue

D

nervous tissue

Q44

What does the size of viruses' range between?

A

100 nm to 150 nm

B

20 nm to 250 nm

C

300 nm to 3000 nm

D

3 nm to 30 nm

Q45

Who opposed the idea the cell is an empty space bounded by thick wall?

A

Lorenz oken

B

Schwann

C

Robert brown

D

Rudolph Virchow

Q46

What is the strengthening material of the prokaryotic cell wall?

A

cellulose

B

chitin

C

silica waxes and lignin

D

peptidoglycan or murein

Q47

The process of determining the locus for particular biological traits includes?

A

replication

B

recombination

C

gene mapping

D

none of these

Q48

Pseudocoelom develops from which of the following?

A

Blastopore

B

Plastoquinone

C

Splitting of mesoderm

D

Blastocoel

Q49

The thalamus and the hypothalamus are located in which region of the brain?

A

brain stem

B

cerebrum

C

cerebellum

D

Diencephalon

Q50

How many postulates does the germ theory of disease have?

A

2

B

3

C

4

D

5

Q51

Larynx is also called:

A

glottis

B

voice box

C

epiglottis

D

both B and C

Q52

The complete, mature and infectious particle is known as?

A

Capsid

B

Virion

C

Bacteriophage

D

Nucleus

Q53

_____cathode is used in discharge tube experiment for discovery of protons

A

flat

B

round

C

perforated

D

oval

Q54

Which of the following forces are strongest?

A

Debye forces

B

Dipole Dipole forces

C

Induced dipole forces

D

Metallic bond

Q55

Which one of the following is not an example of state function?

A

Temperature (T)

B

Volume (V)

C

Enthalpy (E)

D

Heat (q)

Q56

In Which of the following reaction rate of reaction is not affected by increasing concentration of nucleophile ?

A

$\text{S}_{\text{N}}2$

B

E_2

C

$\text{S}_{\text{N}}1$

D

None of these

Q57

Inhibitors which block the enzyme by forming weak bond are called?

A

Competitive inhibitors

B

Non-competitive inhibitors

C

Irreversible inhibitors

D

both a and b

Q58

During an isothermal process which of the following is true?

A

Temperature increases

B

Temperature decreases

C

$dW = dQ$

D

None of them

Q59

Statement Should coal engines be replaced by electric engines in trains? Arguments (I) Yes. Coal engines cause a lot of pollution. (II) Yes. Electric engines are good on performance, easy to operate, and low on maintenance. (III) No. Pakistan does not produce enough electricity to fulfill its domestic needs also.

A

All are strong

B

Only I and II are strong

C

Only II and III are strong

D

Only I and III are strong

Q60

Both radial and bilateral symmetry is found in which of the following phylum?

A

Protozoa

B

Porifera

C

Echinodermata

D

all of these

Q61

Which of these processes is the means by which a bacterium can directly uptake and incorporate foreign DNA from the environment into its genome?

A

transduction

B

transformation

C

binary fission

D

conjugation

Q62

Which is the largest cell in the human body?

A

macrophage

B

ovum

C

granule cell

D

none of these

Q63

Hemoglobin can carry:

A

1 molecule of oxygen

B

2 molecules of oxygen

C

3 molecules of oxygen

D

4 molecules of oxygen

Q63

Hemoglobin can carry:

A

1 molecule of oxygen

B

2 molecules of oxygen

C

3 molecules of oxygen

D

4 molecules of oxygen

Q64

Phosphatidylserine residues in the plasma membrane are located at?

A

The outer leaflet of the plasma membrane

B

Inner leaflet of the plasma membrane

C

Evenly distributed in the inner and outer leaflet

D

none of these

Q65

A chemical substance which can react (in place of substrate) with the enzyme but is not transformed into product/s and thus blocks the active site temporarily or permanently is called?

A

coenzyme

B

blocker

C

inhibitor

D

cofactor

Q66

Mammals became dominant in which of the following historical eras?

A

Proterozoic era

B

Mesozoic era

C

Paleozoic era

D

Cenozoic era

Q67

Respiration involves the

A

Chemical process

B

Biochemical process

C

Mechanical process

D

Both B and C

Q68

Which is not a necessary condition for the Hardy-Weinberg equation to be true?

A

No natural selection

B

No net migration of individuals into or out of the population

C

random mating

D

small population

Q69

in the first reaction of catabolism___ free the _____

A

fatty acids, polysaccharides

B

protein , amino acids

C

lipids, glucose

D

none of these

Q70

Where in the female reproductive system thousands of eggs are found?

A

ovaries

B

vagina

C

fallopian tube

D

uterus

Q71

What type of viruses are the paramyxoviruses?

A

DNA enveloped virus

B

RNA enveloped virus

C

dna virus

D

rna naked virus

Q72

Gene for blue opsin is present on which chromosome?

A

6

B

7

C

8

D

11

Q73

Chlorophyll b is found in which organisms?

A

Green plants

B

green algae

C

Animals

D

both a and b

Q74

How much of the body heat is produced by muscle tissue?

A

15%

B

30%

C

55%

D

85%

Q75

SIV is the abbreviation of

A

simian immunodeficiency virus

B

silurian immunodeficiency virus

C

siberian immunodeficiency virus

D

both a and c

Q76

Which of these is not a reflex action?

A

Secretion of sweat

B

salivation

C

Flexion due to needle prick

D

blinking of eyes due to strong light

Q77

When a dye is injected into a plant cell, it will enter the adjacent cell via?

A

tight junction

B

microtubule

C

desmosomes

D

plasmodesmata

Q78

A three dimensional cavity bearing a specific charge by which the enzyme reacts with its substrate is called?

A

active site

B

binding site

C

catalytic site

D

allosteric site

Q79

People with chronic hepatitis are at risk of?

A

kidney damage

B

liver damage

C

heart damage

D

lung damage

Q80

Which of the following would best determine the fitness of an organism?

A

The number of offspring produced by the organism.

B

How much food the organism consumes in its lifetime.

C

How large the organism grows.

D

The number of offspring produced by the organism's own offspring.

Q81

Which of the following was discovered by J.Seiler in 1914 in mouth?

A

XO-XX

B

XY-XX

C

ZZ-ZW

D

none of these

Q82

The largest part of forebrain which controls the intelligence, emotions and skeletal muscles is classified as?

A

hypothalamus

B

thalamus

C

cerebellum

D

cerebrum

Q83

Distribution of intrinsic proteins in the plasma membrane is?

A

random

B

symmetrical

C

asymmetrical

D

none of these

Q84

Which of the following is found beneath the prostate gland?

A

vas deferens

B

seminal vesicle

C

urethra

D

cowper's gland

Q85

How many actin filaments surround each myosin filament?

A

2

B

4

C

6

D

8

Q86

Lungs are spongy because of the presence of:

A

alveoli

B

trachea

C

diaphragm

D

bronchi

Q87

Which one of the following is not a feature of the nervous system of Planaria?

A Nuerons are differentiated into sensory, motor and associative neurons.

B Nerves are present.

C No specialized sensory organs are present.

D All of the above.

Q88

The pores through which water enters the sponge body are called:

A

Osculi

B

Ostia

C

Opercula

D

None of the above

Q89

The furan ring is an important structural component of biological molecules. How many carbon atoms are required to form ribofuranose?

A

3

B

5

C

6

D

2

Q90

Archaeobacteria can survive at which of the following temperature? (Celcius)

A

300

B

150

C

120

D

200

Q91

Which brain part is responsible for our basic and primitive emotions?

A

Limbic system

B

Thalamus

C

hypothalamus

D

cerebrum

Q92

These are properties of lipids _____

A

Insoluble in water and soluble in fat solvent.

B

High energy content

C

Structural component of cell membrane

D

All of these

Q93

The event happens in menstrual cycle when level of progesterone declines:

A

Ovulation

B

beginning of menses

C

corpus luteum formation

D

maturation of ovarian follicle

Q94

_____ is responsible for making ribosomal RNA (rRNA).

A

Nucleus only

B

Nucleolus only

C

Nucleus & nucleolus only

D

None of the above

Q95

The function of coelom is best characterized as?

A

To increase the size of the animals

B

To help in the functioning of the reproductive system

C

To provide space for the development of organs and systems

D

none of these

Q96

Which type of cell would be the most appropriate for the study of chloroplasts?

A

conducting cell

B

pericycle cell

C

photosynthetic cell

D

all of these

Q97

Which of the following is NOT found in both prokaryotes and eukaryotes?

A

Ribosomes

B

Cytoskeleton

C

Nucleolus

D

Double-stranded DNA

Q98

Which of the following is an example of syndesmosis?

A

radio-ulnar joints

B

tibiofibular joints

C

Both A and B

D

sutures

Q99

Which of the following conditions is not required to be true for a population in Hardy-Weinberg equilibrium?

A

Random mutations

B

Large population

C

No natural selection

D

Random mating

Q100

Which factors may help determine the antigenicity of a virus?

A

capsomeres

B

size of virus

C

whole capsid

D

internal proteins

Q100

Which factors may help determine the antigenicity of a virus?

A

capsomeres

B

size of virus

C

whole capsid

D

internal proteins

Q101

Radial symmetry is found in which of the following organisms?

A

Coelenterata and Platyhelminthes

B

Arthropoda and Mollusca

C

Porifera and Coelenterata

D

Coelenterata and Echinodermata

Q102

The part of spinal cord where interneurons present is called:

A

White matter

B

Gray matter

C

lumbar enlargement

D

cervical enlargement

Q103

Primordial soup is a set of hypothetical conditions on ancient earth first proposed by?

A

Dmitri Ivanovsky

B

Dmitry Anuchin

C

Nikolay Shatsky

D

Alexander Oparin

Q104 Which of the following strategies of enzymatic inhibition is used by noncompetitive inhibitors?

A Bind to substrate so that it cannot bind to the active site

B Target the enzyme for destruction using a protease

C Bind to the active site and prevent substrate from binding

D Bind to an allosteric site to cause a conformational shift in the enzyme

Q105

Which of the following is a chemical link between catabolism and anabolism?

A

AMP

B

ADP

C

ATP

D

all of these

Q106

A motion with constant velocity can be represented on displacement-time graph by:...

A

a horizontal line

B

a curve line with decreasing gradient

C

a straight line with constant gradient

D

a curve line with increasing gradient

Q107

Magnetic flux is a

A

scalar quantity

B

vector quantity

C

sometimes scalar sometimes vector

D

none of these

Q108

Beta particle is actually a

A

fast moving electron

B

slow moving electron

C

electron at rest

D

none of these

Q109

The principle of a direct current generator is based on

A

Coulomb's Law

B

Ampere's Law

C

Faraday's Law

D

Lenz's Law

Q110

Radar system is an application of:...

A

Doppler's effect

B

mechanical effect

C

electric effect

D

magnetic effect

Q111

The particle that possesses half integral spin has

A

pion

B

proton

C

k-meson

D

photon

Q112

What is the S.I. unit of radioactivity?

A

Curie

B

Rutherford

C

Becquerel

D

all of these

Q113

One vibration can be defined as:

A

motion of the body from one extreme position to the other extreme position

B

motion of the body from one extreme position to the same extreme position

C

motion of the body from one extreme position to the mean position

D

motion of the body from mean position and back to the mean position

Q114

A man standing in a bus and pushing the wall of the bus in direction of motion work done by the man is

A

positive

B

zero

C

negative

D

none of these

Q115

Wave nature of electron is similar to

A

proton

B

beta rays

C

gamma rays

D

all of these

Q116

Which of the following is equivalent to a temperature -50°C ?

A

-223 K

B

223 K

C

-323 K

D

323 K

Q117

If radial distance is 2 m and linear acceleration is 2 m the angular acceleration becomes

A

4

B

$\frac{1}{4}$

C

6

D

1

Q118 Peak voltage in the output of full wave rectifier is 10V so dc component of output voltage is

A $10\sqrt{2}$

B $20/\sqrt{2}$

C $20/\pi$

D 20π

Q119

When electron strikes with Al plate which photon is emitted

A

blue

B

white

C

purple

D

none of these

Q120

A radioactive source has a half-life of 80 s. How long it will take to decay $\frac{7}{8}$ of the source?

A 10 sec

B 70 sec

C 240 sec

D 640 sec

Q121

Which element is used to absorb gamma radiations

A

Co

B

Cl

C

Ni

D

P

Q122

What is the unit of frequency?

A

1/Hertz

B

1/ second²

C

Second

D

hertz

Q123

A charged particle is moving in a cyclotron, what effect on the radius of path of this charged particle will occur when the frequency of the radio frequency field is doubled?

A

it will also doubled

B

it will be halved

C

it will increase four times

D

remain unchanged

Q124

If a horse pulls a cart, work done by horse is

A

negative

B

zero

C

positive

D

none of these

Q125

An electric fan rotating at 3 rev s^{-1} is switched off. It comes to rest in 18.0 s . Assuming deceleration to be uniform. How many revolutions did it turn before coming to rest?

A

30 rev

B

27 rev

C

40 rev

D

10 rev

Q126

The energy of electron in n th orbit of Hydrogen atom is

A

-0.0136 eV

B

-1.136 eV

C

0.136 eV

D

None of these

Q127

Which of the following vector is perpendicular to the vector $A = 2i + 3j + 4k$

A

$i + j + k$

B

$4i + 3j - 2k$

C

$i - 3j + k$

D

$i + 2j - 2k$

Q128

A 100 turn coil of area 0.1 m^2 rotates at half a revolution per second. It is placed in a uniform magnetic field of 0.01 T perpendicular to the axis of rotation of the coil. Calculate the maximum voltage generated in the coil?

A

256.33 V

B

89.12V

C

0.314V

D

3.1455 V

Q129

If a projectile is launched with 3m/s velocity at 60 degree angle then at highest point its horizontal velocity is

A

3 m/s

B

2m/s

C

1.5 m/s

D

1.8 m/s

Q130

If displacements due to two individual waves are y_1 and y_2 . Then the resultant displacement, y , of the particle of the medium is:

A

$$y = y_1 * y_2$$

B

$$y = y_1 / y_2$$

C

$$y = y_1 - y_2$$

D

$$y = y_1 + y_2$$

Q131

Which of the following is not an assumption of the kinetic model of an ideal gas?

A

collisions between molecules and walls of container are elastic

B

the duration of collision between molecules is very short

C

all particles of gas has same speed

D

all particles of gas have same mass

Q132

A neon flashlight cell with an emf of 1.5V gives a current of 15A when connected directly to an ammeter of resistance 0.04Ω . The internal resistance of the cell is

A

0.0004Ω

B

0.06Ω

C

0.10Ω

D

0.13Ω

Q133

Calculate the frequency of photon associated with 500 nm wavelength

A

5×10^{14} Hz

B

6×10^{14} Hz

C

7×10^{14} Hz

D

9×10^{14} Hz

Q134

Maximum efficiency of half wave rectifier is

A

80.6 %

B

40.60%

C

70%

D

50%

Q135

Solar spectra is a type of

A

continuous

B

discrete

C

both a) and b)

D

None of these

Q136

The number of electrons taken out from a body to produce 1 coulomb of charge will be

A

6.25×10^{18}

B

625×10^{18}

C

6.023×10^{23}

D

None of these

Q137

Ripple factor is defined as

A

I_{rms}/V_{rms}

B

I_{dc}/I_{rms}

C

I_{rms}/I_{dc}

D

$I_{rms} + I_{dc}$

Q138

The resistance and length of wire are

A

inversely related

B

directly related

C

not related

D

inversely proportional

Q139

An object moves 20 m in 5 sec. What is the gradient of the displacement-time graph?

A

25

B

15

C

4

D

$\frac{1}{4}$

Q140

Which of the following is not as example of adiabatic process?

A

The rapid escape of air from a burst tyre

B

The rapid expansion and compression of air through which a sound wave is passing

C

Cloud formation in the atmosphere

D

slow compression or expansion of gas

Q141

_____ is conserved in pair production

A

charge

B

momentum

C

both a & B

D

none of these

Q142

When a body moves vertically upward, the work done will be

A

positive

B

zero

C

negative

D

none of these

Q143

Centripetal acceleration always acts _____ the center

A

away

B

towards

C

normally

D

tangentially

Q144

A thermally insulated rigid container contains an ideal gas. It is heated through a resistance coil of 100Ω by passing a current of 1 A for five minutes, then change in internal energy of the gas is

A

0kJ

B

10kJ

C

20 kJ

D

30 kJ

Q145

A 200 watt bulb operates in a 220V circuit. Find the current.

A

0.9 Amp

B

0.6 Amp

C

2 Amp

D

3 Amp

Q146

What voltage is required to store $7.2 \times 10^5 \text{ C}$ of charge on the plates of a $6.0 \mu\text{F}$ capacitor?

A

12 V

B

43.2 V

C

1.2 V

D

432 V

Q147

Absorbed dose D is defined as energy absorbed from ionization radiation per unit ____

A

mass

B

charge

C

time

D

area

Q148

Magnetic flux is zero

A

when angle is 90

B

angle is 0

C

angle is 180

D

none of these

Q149

Wavelength of a sound wave in air is 10 cm, what is the frequency of the sound wave?

A

33 Hz

B

330 Hz

C

3300 Hz

D

33000 Hz

Q150

Electrical power is given by $P =$

A

VI

B

$I^2 R$

C

V^2 / R

D

all

Q151

A bullet of mass 10 g leaves a rifle at an initial velocity of 1000 m/s and strikes earth at the same level with a velocity of 500 m/s. the work in overcoming the resistance of air will be:

A

500J

B

5000J

C

3750J

D

475J

Q152

Power transformers have maximum efficiency at

A

no load

B

full load

C

half load

D

double load

Q153

If the temperature of Sun is doubled heat energy reached on earth become

A

three times

B

sixteen times

C

four times

D

same

Q154

SI unit of equivalent dose is

A

gray

B

radiation

C

sievert

D

rem

Q155

This book has won _____ Booker prize.

A

a

B

an

C

the

D

no article

Q156

When the dentist came in (A), my tooth was stopped aching (B)/ out of fear (C) that I might loose my tooth. (D)

A

When the dentist came in

B

my tooth was stopped aching

C

out of fear

D

that i might loose my tooth.

Q157

My watch is five minutes _____.

A

behind

B

before

C

slow

D

early

Q158

Don't forget your _____. It's very cold outside, you wouldn't want to catch a cold.

A

gloves

B

underwear

C

umbrella

D

scissors

Q159

Your friend _____ (wait) for you for over an hour.

A

wait

B

waiting

C

waited

D

waits

Q160

secular

A

non-religious

B

unpopular

C

special

D

notable

Q161 The two machines _____ considerably. One has an electric motor, the other runs on oil.

A different

B differentiate

C differ

D difference

Q162

would not

A

would'nt

B

wouldn't

C

woul'dnt

D

wouldnt'

Q163

he is

A

hes

B

hes'

C

he's

D

heis

Q164

My parents _____ near Lahore.

A

living

B

are living

C

lives

D

live

Q165

coveted

A

worn

B

greatly desired or envied

C

eager

D

detested

Q166

The train leaves _____ 5 o'clock, hurry up!

A

at

B

in

C

around

D

under

Q167

The ebb and flow of the tides _____ explained by Newton.

A

are

B

was

C

were

D

is

Q168

_____ knows that Dallas is not the capital of Texas.

A

Anyone

B

Many persons

C

Not everyone

D

Somebody

Q169

luminary

A

bright

B

lightening

C

famous

D

dashing

Q170

He is a scientist (A)/ but out of (B)/ his three sons (C)/ neither have become scientists. (D)

A

He is a scientist

B

but out of

C

his three sons

D

neither have become scientists.

Q171

Choose the correct sentence.

A Mrs Sajjad: who was sitting behind the desk, gave me a big smile.

B Mrs Sajjad who was sitting behind the desk gave me a big smile.

C Mrs Sajjad, who was sitting behind the desk, gave me a big smile.

D Mrs Sajjad, who was sitting behind the desk gave me a big smile?

Q172

Statement A smoker has left smoking suddenly a. He will feel restlessness and anxiety. b. He will start gaining weight

A

Both of them follows

B

None of them follows

C

Only b follows

D

Only a follows

Q173

The hotel is two blocks east of the drugstore. The market is one block west of the hotel. The drugstore is west of the market. If the first two statements are true, the third statement is

A

True

B

FALSE

C

maybe

D

unresolved

Q174

Which one does not belong to others?

A

Apple

B

Mango

C

Cucumber

D

Orange

Q174

Which one does not belong to others?

A

Apple

B

Mango

C

Cucumber

D

Orange

Q175

Tea is to mug as the jam is to

A

Plate

B

Bread

C

Spoon

D

Water

Q176

Statement The Management of School M has decided to give free breakfast from next academic year to all the students in its primary section through its canteen even though they will not get any government grant. Courses of Action (I) The school will have to admit many poor students who will seek admission for the next academic year. (II) The canteen facilities and utensils have to be checked and new purchases to be made to equip it properly. (III) Funds will have to be raised to support the scheme for years to come.

A

Only II and III follows

B

Only III and I follow

C

Only I and II follow

D

Only I follows

Q178

An analogue clock always has

A Alarm

B Sound

C Needles

D Numbers

[Previous Question](#)

[Next Question](#)

Q179

What should come next to Confound, Illiterate, Bewilder, ?

A

Kind

B

Unlearned

C

Normal

D

Disable

Q180

Directions : In each of the following questions a statement is given, followed by two conclusions. Give answer : Statement : Without reforming the entire administrative system, we cannot eradicate corruption and prejudice from the society. Assumptions : I. The existence of corruption and prejudice is good. II. There is enough flexibility to change the administrative system.

A Only assumption I is implicit

B Only assumption II is implicit

C Either I or II is implicit

D Both A and B

Q181

Which alkali metal only combine with Nitrogen?

A

Li

B

Fr

C

Cs

D

K

Q182

The negative ions having group of atoms is/are

A

OH^-

B

CO_3^{2-}

C

$\text{Cr}_2\text{O}_7^{2-}$

D

all of these

Q183

Benzophenone is also known as :

A

Diphenyl ketone

B

Ethyl Phenyl ketone

C

Tri Phenyl ketone

D

None of these

Q184

In S_N2 reaction, rate of reaction is directly proportional to concentration of _____?

A

Substrate only

B

Nucleophile

C

Substrate and nucleophile

D

All of these

Q185

Which of the following is not aromatic?

A

Anthracene

B

Naphthalene

C

Phenol

D

None of these

Q186

Enzymes binds with chemical reactant which is known as?

A

product

B

reactant

C

substrate

D

all of these

Q187

In the addition of sodium bisulfite to carbonyl system, which of the following is nucleophile?

A

Sulphide ion

B

Sulfite ion

C

Hydride ion

D

Sodium ion

Q188

The reaction in which benzene is reacted with alkyl or acyl halide in the presence of AlCl_3 is called as _____?

A

Aldol condensation

B

Wolf kishner reaction

C

Wittig reaction

D

Friedel and craft reaction

Q189

Which of the following process is an example of exothermic reaction?

A

Evaporation

B

Fusion

C

Sublimation

D

Respiration

Q190

In Powdered form the angles and faces in a crystal are

A

Ruptured

B

Changed

C

Unchanged

D

None of these

Q191

Geometrical isomerism arises due to _____?

A

Rotation around a double bond

B

Restriction of rotation around a single bond

C

Restriction of rotation around a double bond

D

Due to double bond

Q192

Reagent like $\text{K}_2\text{Cr}_2\text{O}_7$ and H_2SO_4 lead to _____?

A

Reduction

B

Hydrolysis

C

Dehydration

D

Oxidation

Q193

The units of electric intensity are:...

A

volt / meter or newton / coulomb

B

volt / meter or meter / coulomb

C

volt / coulomb or newton / coulomb

D

joule / meter or newton / coulomb

Q194

Joule-Thomson effect is used to _the temperature of a gas to liquefy it

A

raise

B

higher

C

equalize

D

lower

Q195

What is critical in photoperiodism?

A

Length of light period

B

Length of dark period

C

both a and b

D

none of these

Q196

Some of the books on the table _____ to me.

A

belong

B

belonging

C

belongs

D

was belong

Q197

What does NADPH₂ provide during photosynthesis?

A

energized electron

B

energy

C

uncharged electron

D

all of these

Q198

Alkyl halide react with Sodium lead alloy, which of the following is correct formula of tetramethyl lead?

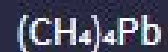
A



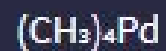
B



C



D



Q199

If the concentration of reactants in a chemical reaction is Unity the rate is called

A

Unit rate constant

B

specific rate constant

C

Relative rate constant

D

Average rate constant

Q200

in solid iodine, I-I bond distance is

A

77.1 pm

B

271.5 pm

C

11 pm

D

166.7 pm

Q201

Each Kreb's cycle forms how many molecules of NADH?

A

3

B

2

C

4

D

1

Q202

Lymph capillaries join together to form larger lymph vessels, that gives rise to:

A

Thoracic duct

B

lymph duct

C

thoracic lymph duct

D

sperm duct

Q203

If heat given is 6 kcal and work done is 6 kJ, then internal energy is

A

19.1 kJ

B

25.2 kJ

C

25kJ

D

zero

Q204

An armature coil consists of 30 turns of wire, each of area $A = 0.05 \text{ m}^2$ and total resistance of 10Ω . It rotates in a magnetic field of 0.15 T at an angular speed of $84 \text{ radian per second}$. Determine the value of maximum induced emf produced in the coil.

A

1V

B

500V

C

63V

D

43V

Q205

In a double slit experiment, a monochromatic light was used. the wavelength of light was 500 nm. The distance between slits is 1.0 mm. What is the separation between fringes if they are observed at a distance of 3.0 m?

A

15 mm

B

15 cm

C

1.5 mm

D

1.5 cm

Q206

The lions _____ (do) tricks; they _____ (jump) through hoops.

A

do, jumps

B

did, jumping

C

did, jumped

D

doing, jumping

Q207

The biochemical process used in the synthesis of alcohol in the presence of yeast is called as _____?

A

Respiration

B

Photosynthesis

C

Fermentation

D

Aerobic respiration

Q208

Aluminum is:...

A

an excellent conductor

B

a semiconductor

C

an insulator

D

a photoconductor

Q209

To start a fusion reaction, energy required is

A

small

B

large

C

infinite

D

zero

Q210

_____ You did it again.

A

Hey!

B

Wow!

C

Bravo!

D

None